

Notice of Allowability

Application No.

10/762,404

Examiner

David D. Le

Applicant(s)

HAKA, RAYMOND J.

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 22 January 2004.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 22 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 01/22/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/762,404, filed on 22 January 2004. Claims 1-16 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 1/22/04

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, Christopher Devries, on 11 April 2005.

The application has been amended as follows:

Abstract:

- o Lines 12-16, the phrase, "If the front axle ratio times the chain ratio is different from the rear axle ratio, three distinct drive ratios will be available, if the front axle ratio times the chain ratio is identical to the rear axle ratio, front-wheel drive, all-wheel drive, and rear-wheel drive will all be achieved at the same drive ratio." has been deleted.

Claim 1:

- Line 4, the word “connectable” has been changed to --connected--; and
- Line 6, the word “connectable” has been changed to --connected--.

Claim 6:

- Line 1, the phrase “claim 6” has been changed to --claim 5--.

Allowable Subject Matter

4. Claims 1-16 are allowed.
5. The following is an examiner’s statement of reasons for allowance:

Claim 1:

The prior art of record fails to show or render obvious a transfer case comprising a front axle, a rear axle, a planetary gear set, and an input shaft, as recited in the claim; specifically, wherein the transfer case provides rear wheel drive when the second member is connected with the input shaft, all-wheel drive when the third member is connected with the input shaft, and front wheel drive when the first member is connected with the input shaft.

Claim 9:

The prior art of record fails to show or render obvious a drive train for a vehicle comprising a front axle, a rear axle, and a transfer case having a planetary gear set and an input shaft, as recited in the claim; specifically, wherein the transfer case provides rear wheel drive low when the sun gear is engaged with the input shaft, all-wheel drive when the carrier is engaged with the input shaft, and front wheel drive high when the ring gear is engaged with the input shaft.

Claim 16:

The prior art of record fails to show or render obvious a drive train for a vehicle comprising a front axle, a rear axle, a transfer case having a simple planetary gear set and an input shaft, and a plurality of dog clutches and synchronizers, as recited in the claim; specifically, wherein the transfer case provides rear wheel drive low when the sun gear is engaged with the input shaft, all-wheel drive when the carrier is engaged with the input shaft, and front wheel drive high when the ring gear is engaged with the input shaft.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- Spitale (U. S. Patent No. 6,814,682) teaches a transfer case with synchronizer clutch as shown in Fig. 2.
- Williams (U. S. Patent No. 6,602,159) teaches an on-demand two-speed transfer case as shown in Fig. 2.
- Williams (U. S. Patent No. 6,056,666) teaches a transfer case as shown in Fig. 2.
- Williams (U. S. Patent No. 5,911,644) teaches a two-speed transfer case as shown in Figs. 2-5.
- Francis (U. S. Patent No. 6,022,289) teaches a transfer case as shown in Figs. 2-7.
- Reuter et al. (U. S. Patent No. 5,199,325) teaches an electronic shift for a vehicle transmission as shown in Fig. 7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ddl


ROGER FANG
PRIMARY EXAMINER
4-14-05